

The Association Between Vitamin D and Acute Rejection in Human Kidney Transplantation: A Systematic Review and Meta-analysis Study

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Newcastle-Ottawa Quality Assessment Form for Cohort Studies

Note: A study can be given a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability.

Selection

- 1) Representativeness of the exposed cohort
 - a) Truly representative (*one star*)
 - b) Somewhat representative (*one star*) (*each group more than 30 patients*)
 - c) Selected group
 - d) No description of the derivation of the cohort

- 2) Selection of the non-exposed cohort
 - a) Drawn from the same community as the exposed cohort (*one star*)
 - b) Drawn from a different source
 - c) No description of the derivation of the non exposed cohort

- 3) Ascertainment of exposure
 - a) Secure record (e.g., surgical record) (*one star*) (*measurement of 25(OH)D with any available method*)
 - b) Structured interview (*one star*)
 - c) Written self report
 - d) No description
 - e) Other

- 4) *The rate of 25(OH)D level*
 - a) *For 25(OH)D deficient group <15 ng/ml and for 25(OH)D sufficient group ≥30 ng/ml (one star)*
 - b) *For 25(OH)D deficient group >15 25(OH)D <20 ng/ml or for 25(OH)D sufficient group ≥20 25(OH)D <30 ng/ml*

Comparability

- 1) Comparability of cohorts on the basis of the design or analysis controlled for confounders
 - a) The study controls for age, sex and marital status (*one star*) (age, transplant type, cold ischemic time and total HLA mismatch; if two of them is matched, will give one star)
 - b) Study controls for other factors (list) to control for those factors in the section “a” which there is no matching and also for other factors such as etiology of ESRD, renal replacement therapy and... (*one star*)
 - c) Cohorts are not comparable on the basis of the design or analysis controlled for confounders

Outcome

- 1) Assessment of outcome
 - a) Biopsy approved (*one star*)
 - b) Clinically suspected
 - c)

- 2) Was follow-up long enough for outcomes to occur (from 3 to 12 months)
 - a) Yes (*one star*)
 - b) No

Indicate the median duration of follow-up and a brief rationale for the assessment above: _____

- 3) Adequacy of follow-up of cohorts
 - a) Complete follow up- all subject accounted for (*one star*)
 - b) Subjects lost to follow up unlikely to introduce bias- number lost less than or equal to 20% or description of those lost suggested no different from those followed. (*one star*)
 - c) Follow up rate less than 80% and no description of those lost
 - d) No statement

Thresholds for converting the Newcastle-Ottawa scales to AHRQ standards (good, fair, and poor):

Good quality: 3 or 4 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

Fair quality: 2 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

Poor quality: 0 or 1 star in selection domain OR 0 stars in comparability domain OR 0 or 1 stars in outcome/exposure domain